REMARKS

Claim 1-11 are pending in the application. Claim 11 has been withdrawn by way of the present amendment. Applicants respectfully request reconsideration.

In the outstanding Office Action, the election of claims 1-10 has been acknowledged; claims 1-3 and 5-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over by U.S. Patent No. 5,587,342 (Lin et al.) in view of U.S. Patent No. 6,534,422 (Ichikawa et al.); and claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. in view of Ichikawa et al., as applied in claim 1, and further in view of U.S. Patent Application No. (US 2005/0025973) (Slutz et al.).

Rejections under 35 U.S.C. Section 103

Claims 1-3 and 5-10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. in view of Ichikawa et al. Applicants respectfully traverse the rejection.

Lin et al. discloses a method for forming an electrical interconnect that includes interconnecting bumps that are formed on a circuit substrate using printing or dispensing techniques with a wet photoresist layer as a mask.[1] In particular, Lin et al. discloses a method comprising the steps of: providing a substrate; forming a conductive layer on a portion of the substrate; forming a wet photoresist layer on the substrate and the conductive layer; patterning the wet photoresist layer to form openings to the conductive layer; disposing a conductive paste in at least the openings to the conductive layer; heating the conductive paste a first time at a temperature above room temperature; removing the wet photoresist layer; and heating the conductive paste at a temperature above room temperature a second time after the step of removing the wet photoresist layer.[2] More specifically, Lin et al. discloses *sweeping* **42** the conductive paste **30** with a squeegee **40** across the wet photoresist layer **15**, forcing the conductive paste **30** into openings **20** and removing the excess conductive paste **30** off of photoresist mask **15**; or *applying pressure* to the conductive paste **30** through any means, such as

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[1] Lin et al. at ABSTRACT.
[2] *Id.* at FIG. 1 – FIG. 7, column 6, lines 6-23.

disk 50, that forces conductive paste 30 into openings 20 and removing the excess conductive paste 30 off of photoresist mask 15 (emphasis added).[3]

However, Lin et al. nowhere discloses, as recited in claim 1:

> *polishing* the conductive polymer layer to remove excess conductive polymer material from a surface of the photoresist (emphasis added).

That is, as discussed above, Lin et al. discloses either *sweeping* 42 the conductive paste 30 with a squeegee 40 or *applying pressure* to the conductive paste 30 "to remove excess conductive paste 30."[4] In contrast to Lin et al., claim 1 recites the limitation of "polishing the conductive polymer layer to remove excess conductive material." In fact, the specification of the invention explicitly teaches away from the use of "squeegee-based" or "pressure-based" approaches and includes test results emphasizing the benefits of "polishing," as recited in claim 1.[5] Thus, it is respectfully submitted that Lin et al. does not disclose the claimed invention and that claim 1, and claims dependent thereon, patentably distinguish thereover.

In addition, the outstanding Office Action acknowledges other deficiencies of Lin et al. and attempts to overcome these deficiencies by combining Lin et al. with Ichikawa et al.[6] However, Ichikawa et al. cannot overcome the deficiencies of Lin et al. with regards to the claimed invention as will be discussed below.

Ichikawa et al. discloses an Electro-Static Discharge (ESD) structure that is created on an integrated circuit by providing a conductive polymer material between a signal line and a supply node or ground reference.[7] In addition, Ichikawa et al. discloses that the conductive polymer material becomes conductive when an electric field of sufficient intensity is applied.[8]

However, Ichikawa et al. nowhere discloses, as recited in claim 1:

> *polishing* the conductive polymer layer to remove excess conductive polymer material from a surface of the photoresist (emphasis added).

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[3] *Id.* at FIG. 3 – FIG. 4, column 3, lines 39-67.
[4] *Id.*
[5] Specification at paragraphs 15 and 51-55.
[6] Outstanding Office Action, page 2, paragraph 3f.
[7] Ichikawa et al. at ABSTRACT.
[8] *Id.*

That is, in contrast to Ichikawa et al., claim 1 recites the limitation of "polishing the conductive polymer layer to remove excess conductive material." Since nothing in Ichikawa et al. has been cited that discloses this limitation, Ichikawa et al. cannot overcome the deficiencies of Lin et al.

Therefore, it is respectfully submitted that neither Lin et al. nor Ichikawa et al., whether taken alone or in combination, disclose the claimed invention and that claim 1, claim 5 and claims dependent thereon, patentably distinguish thereover.

Claim 4 was rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. in view of Ichikawa et al., as applied in claim 1, and further in view of Slutz et al. Applicants respectfully traverse the rejection.

Claim 4 ultimately depends upon claim 1. As discussed above, neither Lin et al. or Ichikawa et al., whether taken alone or in combination, disclose the limitations of claim 1. Thus, at least for the reasons discussed above, neither Lin et al. or Ichikawa et al., whether taken alone or in combination, disclose the limitations of claim 4.

In addition, the outstanding Office Action acknowledges other deficiencies of Lin et al. and Ichikawa et al. and attempts to overcome these deficiencies by combining Lin et al. and Ichikawa et al. with Slutz et al.[9] However, Slutz et al. cannot overcome the deficiencies of Lin et al. and Ichikawa et al. with regards to the claimed invention as will be discussed below.

Slutz et al. discloses a composite material and the method of making same, which comprises a CVD diamond coating applied to a composite substrate of ceramic material and an unreacted carbide-forming material of various configurations and for a variety of applications.[10]

However, Slutz et al. nowhere discloses, as recited in claim 1 and claim 4:

> *polishing* the conductive polymer layer to remove excess conductive polymer material from a surface of the photoresist (emphasis added).

That is, in contrast to Slutz et al., claim 1 and claim 4 both recite the limitation of "polishing the conductive polymer layer to remove excess conductive material." Since nothing in Slutz et al. has been cited that discloses this limitation, Slutz et al. cannot overcome the deficiencies of Lin et al. and Ichikawa et al.

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[9] Outstanding Office Action, page 2, paragraph 4.
[10] Slutz et al. at ABSTRACT.

Therefore, it is respectfully submitted that none of Lin et al., Ichikawa et al. nor Slutz et al., whether taken alone or in combination, disclose the claimed invention and that claim 1, claim 4 and claims dependent thereon, patentably distinguish thereover.

Conclusion

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

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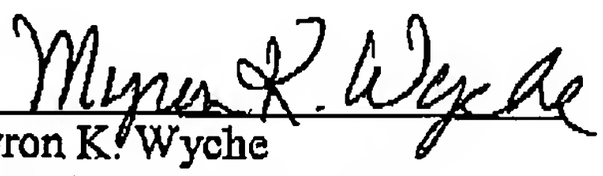
Respectfully submitted,

By 
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